

# **Grenada Manufacturing**

### **Data Review**

GRENADA, MISSISSIPPI

Volatile Analysis

SDG #1509511

Analyses Performed By: Eurofins Air Toxics Ltd. Folsom, California

Report: #24464R Review Level: Tier III

Project: LA003307.0001.00007

#### **SUMMARY**

This data quality assessment summarizes the review of Sample Delivery Group (SDG) #1509511 for samples collected in association with the Grenada Manufacturing site. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Included with this assessment are the validation annotated sample result sheets and chain of custody. Analyses were performed on the following samples:

			Sample		Analysis				
Sample ID	Lab ID	Matrix	Collection Date	Parent Sample	VOC	svoc	PCB	MET	MISC
6-SS(092315)	1509511-01	Air	9/23/2015		Х				
1-SS(092315)	1509511-02	Air	9/23/2015		Χ				
1-DUP-SS(092315)	1509511-03	Air	9/23/2015	1-SS(092315)	Χ				
5-SS(092315)	1509511-04	Air	9/23/2015		Х				
2-SS(092315)	1509511-05	Air	9/23/2015		Х				
3-SS(092315)	1509511-06	Air	9/23/2015		Х				
4-SS(092315)	1509511-07	Air	9/23/2015		Х				

### **ANALYTICAL DATA PACKAGE DOCUMENTATION**

The table below is the evaluation of the data package completeness.

Items Reviewed		Reported		mance ptable	Not Required
		Yes	No	Yes	Required
Sample receipt condition		Х		Χ	
Requested analyses and sample results		X		Х	
Collection Technique (grab, composite, etc.)		Х		Х	
Methods of analysis		Х		Х	
Reporting limits		Х		Х	
Sample collection date		Х		Х	
Laboratory sample received date		Х		Х	
Sample preservation verification (as applicable)		Х		Х	
Sample preparation/extraction/analysis dates		Х		Х	
Fully executed Chain-of-Custody (COC) form completed		Х		Х	
Narrative summary of QA or sample problems provided		Х		Х	
Data Package Completeness and Compliance		Х		Х	

QA - Quality Assurance

#### INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) Method TO-15. Data were reviewed in accordance with USEPA National Functional Guidelines of October 1999.

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
  - U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.
  - B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
- Quantitation (Q) Qualifiers
  - E The compound was quantitated above the calibration range.
  - D Concentration is based on a diluted sample analysis.
- Validation Qualifiers
  - J The compound was positively identified; however, the associated numerical value is an estimated concentration only.
  - UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.
  - JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.
  - UB Compound considered non-detect at the listed value due to associated blank contamination.
  - N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.
  - R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

### **VOLATILE ORGANIC COMPOUND (VOC) ANALYSES**

#### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation	Return Canister Pressure
EPA TO-15	Air	30 days from collection to analysis	Ambient Temperature	< -1" Hg

All samples met return canister pressure criteria and were analyzed within the specified holding time.

#### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore detected sample results were not associated with blank contamination.

#### 3. Mass Spectrometer Tuning

Mass spectrometer performance was acceptable and all analyses were performed within a 24-hour tune clock.

System performance and column resolution were acceptable.

#### 4. Calibration

Satisfactory instrument calibration is established to insure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

#### 4.1 Initial Calibration

The method specifies percent relative standard deviation (%RSD) and relative response factor (RRF) limits for select compounds only. A technical review of the data applies limits to all compounds with no exceptions.

All target compounds associated with the initial calibration standards must exhibit a %RSD less than the control limit (30%) and an RRF value greater than control limit (0.05).

#### 4.2 Continuing Calibration

All target compounds associated with the continuing calibration standard must exhibit a percent difference (%D) less than the control limit (30%) and RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

#### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the established acceptance limits of 70% to 130%.

All surrogate recoveries were within control limits.

#### 6. Internal Standard Performance

Internal standard performance criteria insure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria requires the internal standard compounds associated with the VOC exhibit area counts that are not greater than 40% or less than 40% of the area counts of the associated continuing calibration standard.

All internal standard responses were within control limits.

#### 7. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the established acceptance limits of 70% to 130%.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

#### 8. Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for air matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

A laboratory duplicate was not performed on a sample location within this SDG.

#### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 100% for air matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of three times the RL is applied for air matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Compound	Sample Result (µg/m³)	Duplicate Result (µg/m³)	RPD
1-SS(092315)/	Trichloroethene	6.6 U	22	AC
1-DUP-SS(092315)	Tetrachloroethene	8.5	8.0 U	AC

AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

### 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

### 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## **DATA VALIDATION CHECKLIST FOR VOCs**

VOCs: TO-15		Reported		Performance Acceptable	
	No	Yes	No	Yes	Required
GAS CHROMATOGRAPHY/MASS SPECTROME	TRY (GC	/MS)			
Tier II Validation					
Canister return pressure (<-1"Hg)		X		Х	
Holding times		X		Х	
Reporting limits (units)		X		Х	
Blanks					
A. Method blanks		Х		Х	
B. Equipment blanks					Х
C. Trip blanks					Х
Laboratory Control Sample (LCS)		Х		Х	
Laboratory Control Sample Duplicate(LCSD)		Х		Х	
LCS/LCSD Precision (RPD)		Х		Х	
Field/Lab Duplicate (RPD)		Х		Х	
Surrogate Spike Recoveries		Х		Х	
Dilution Factor		Х		Х	
Moisture Content					Х
Tier III Validation					
System performance and column resolution		Х		Х	
Initial calibration %RSDs		Х		Х	
Continuing calibration RRFs		Х		Х	
Continuing calibration %Ds		Х		Х	
Instrument tune and performance check		Х		Х	
Ion abundance criteria for each instrument used		Х		Х	
Internal standard		Х		Х	
Compound identification and quantitation		1	•		
A. Reconstructed ion chromatograms		Х		Х	
B. Quantitation Reports		Х		Х	
C. RT of sample compounds within the established RT windows		Х		Х	
D. Transcription/calculation errors present				Х	
Reporting limits adjusted to reflect sample dilutions		Х		Х	

VOCs: TO-15	Repo	orted	Perfori Accep		Not Required	
	No	Yes	No	Yes	1109	
GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)						

%RSD Percent relative difference

%R RPD %D Percent recovery
Relative percent difference
Percent difference

VALIDATION PERFORMED BY: Jennifer Singer

SIGNATURE: Jennifer Alinger

DATE: November 2, 2015

PEER REVIEW BY: \_ Dennis Capria

DATE: November 4, 2015

CORRECTED SAMPLE ANALYSIS DATA SHEETS AND COCs
--



Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630-4719 (916) 985-1000 FAX (916) 985-1020

Project Manager	ect Manager Roject Info: Tu					Turn Around Lab Use Only						
Collected by: (Print and Sign) R WOOD	cted by: (Print and Sign) & WOODRIFF / MHEAP (All Washeld)			20.# LA003307.0001 X			Time:		Pressurized by:			
Company ARCAD IS	pany ARCADIS Email Tab uppen complete codes. com						M No	rmal	Date:			
Address 132E NASHINGTON Cit				roject #	LAOO	3301, 8	000/	🖵 Ru	sh	Pressi	urization (	ริคร:
Phone 317-231-65-00				roject N	lame Gren	oda Mo	n Foutile	**************************************				
	1 dv 211 C21. 30		<del></del>				1	sp	ecify		N₂ He	****
Lab I.D. Field Sample I.D	) (Location)	Can #	Date	I .	Time f Collection	Analya	es Reques				sure/Vac	25.622.62.22.23.23.2
· · · · · · · · · · · · · · · · · · ·	-	Odii #	Oi Conect	tion o	Conection	Analys	es neques	tea	Initial	Final	Receipt	Final (psi)
OIA 6-SS (092315)		31782	9-23-1	S i	117/1130	TO-15,	Project L	st	30	4,5		
OUT 1-SS (092315)		14/624		America	216/1227		Project i		30	5,75		
5/A 1-DIP-SS (092:		34618					Hozat L		30	5		
04/A 5-SS (092315)		1358		5			Project (		30	5		
65th 2-55 (092315)		121901										
1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							Project (		30	4.5		
0 00 1 10010/		15794			547/1601				30			
an 4-SS (92315)		36399	<b>V</b>		700/1713	10-15	Project L	ut	30	5		
Relinquished by: (signature) Date/Time	1 / \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ved by: (signat	ure) Date	e/Time	lə	₹35 <b>\</b>	lotes:		COMPLETE STATE OF THE STATE OF		are the second second	
-MO10 9-24	1 1	halice H	CATHOU	IBA	R 9/30/1	5						TO SECOND
Relinquished by: (signature) Date/Time	Přecei	ved by: (signat	ure) Date	Time	-7 /							Married COSO
			77074TL									ARREST PARTY AND A STATE OF THE
Relinquished by: (signature) Date/Time	Recei	ved by: (signat	ure) Date	e/Time								Middle State of the State of th
Shipper Name	Ale Dill 4	-	//^\		0 112							
Lab	Air Bill #		emp (°C)		Condition		Custody Sea	- Jan	<del>~~</del>	Work C		
Only Teday		A	JA		Good		Yes No	(Noi	<u>je</u> }	<u> </u>	0951	i l
												THE SAME OF THE PERSON PROPERTY.



## Client Sample ID: 6-SS(092315) Lab ID#: 1509511-01A

### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17100223	Date of Collection: 9/23/15 11:30:00 AM
Dil. Factor:	2.34	Date of Analysis: 10/2/15 10:45 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	28	5.7	140
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
Toluene	1.2	1.2	4.4	4.7
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
1.2.4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected

Surrogates	%Recovery	Method Limits		
Toluene-d8	103	70-130		
1,2-Dichloroethane-d4	103	70-130		
4-Bromofluorobenzene	91	70-130		



## Client Sample ID: 1-SS(092315) Lab ID#: 1509511-02A

### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17100224	Date of Collection: 9/23/15 12:27:00 PM
Dil. Factor:	2.44	Date of Analysis: 10/2/15 11:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	6.0	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.6	Not Detected
Toluene	1.2	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	1.2	8.3	8.5
Ethyl Benzene	1.2	Not Detected	5.3	Not Detected
m,p-Xylene	1.2	Not Detected	5.3	Not Detected
o-Xylene	1.2	Not Detected	5.3	Not Detected
1.2.4-Trimethylbenzene	1.2	Not Detected	6.0	Not Detected

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	92	70-130



## Client Sample ID: 1-DUP-SS(092315) Lab ID#: 1509511-03A

### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17100231	Date of Collection: 9/23/15 12:30:00 PM
Dil. Factor:	2.35	Date of Analysis: 10/3/15 07:37 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	4.1	6.3	22
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	8.0	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	92	70-130



## Client Sample ID: 5-SS(092315) Lab ID#: 1509511-04A

### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17100226	Date of Collection: 9/23/15 1:32:00 PM
Dil. Factor:	2.38	Date of Analysis: 10/3/15 12:20 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
1,2,4-Trimethylbenzene	1.2	1.3	5.8	6.6

Surrogates	%Recovery	Method Limits
Toluene-d8	105	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	95	70-130



## Client Sample ID: 2-SS(092315) Lab ID#: 1509511-05A

### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17100227	Date of Collection: 9/23/15 2:39:00 PM
Dil. Factor:	2.34	Date of Analysis: 10/3/15 12:44 AM

	=			-
Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
Toluene	1.2	1.8	4.4	6.9
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	Not Detected	7.9	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected

Surrogates	%Recovery	Metnod Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	96	70-130



## Client Sample ID: 3-SS(092315) Lab ID#: 1509511-06A

### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17100230	Date of Collection: 9/23/15 4:01:00 PM
Dil. Factor:	2.28	Date of Analysis: 10/3/15 06:39 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Methylene Chloride	11	Not Detected	40	Not Detected
trans-1,2-Dichloroethene	1.1	3.1	4.5	12
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.1	Not Detected
Toluene	1.1	Not Detected	4.3	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	Not Detected	7.7	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	5.0	Not Detected
o-Xylene	1.1	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected

		Method
Surrogates	%Recovery	Limits
Toluene-d8	106	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	88	70-130



## Client Sample ID: 4-SS(092315) Lab ID#: 1509511-07A

#### EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	17100229	Date of Collection: 9/23/15 5:13:00 PM
Dil. Factor:	2.33	Date of Analysis: 10/3/15 01:43 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Methylene Chloride	12	Not Detected	40	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	1.2	7.9	7.9
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
1.2.4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected

		Method
Surrogates	%Recovery	Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130